

# Missouri Behavioral Risk Factor Surveillance System

## 2016 Key Findings



Missouri Department of Health and Senior Services  
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## ACKNOWLEDGEMENTS

### Missouri Behavioral Risk Factor Surveillance System (BRFSS) 2016 Key Findings

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# INTRODUCTION

The Missouri Behavioral Risk Factor Surveillance System (BRFSS) is an annual telephone survey of adults age 18 and older that collects a range of information on health issues. BRFSS data are used to identify emerging health problems, establish health objectives and track their progress, and develop and evaluate public health policies and programs.

A total of 7,126 adults were interviewed January through December 2016 by the Health and Behavioral Risk Research Center at the University of Missouri-Columbia. Randomly selected household landline telephone numbers were called and an adult was randomly selected to participate in the survey. Additionally, randomly selected adult cell phone users participated in the interview. Data from the landline and cell phone interviews were aggregated and weighted by the U.S. Centers for Disease Control and Prevention (CDC) to be representative of non-institutionalized adults in Missouri. This report summarizes key findings from the survey.

**Please note:** The CDC began using new weighting methodology in 2011 that allows the data to be more representative of the adult population. A description of the new methodology may be found at <https://www.cdc.gov/surveillancepractice/reports/brfss/brfss.html>. Data from 2011 and later should not be compared to data prior to 2011 because of the new weighting method.

The 2016 BRFSS revealed improvements among Missouri adults in the following areas:

- 92.8 percent of adults ages 55-64 had health care coverage, a significant increase from 87.8 percent in 2012, and the coverage among adults ages 18-24 also significantly increased from 72.3 percent in 2012 to 82.1 percent in 2016
- 86.2 percent of adults ages 18-64 had health care coverage, a significant increase from 79.7 percent in 2012
- 23.1 percent of adults with annual household incomes of less than \$15,000 had no health care coverage, a significant decline from 2012 (33.6 percent)
- 69.1 percent of adults between age 50 and 75 years had ever had a sigmoidoscopy or colonoscopy exam, an increase from 66.5 percent in 2012
- 22.1 percent currently smoked cigarettes, a decline from 23.9 percent in 2012

However, the following health concerns were found among Missouri adults:

- 46.0 percent of adults gambled for money or something else of value in the last 12 months
- 44.8 percent of adults with annual household incomes of less than \$15,000 were current smokers
- 35.6 percent were overweight, and 31.7 percent were obese
- 30.6 percent had been diagnosed with arthritis by a doctor
- 25.2 percent of Missouri adults had ever used an electronic cigarette.
- 24.9 percent had not engaged in leisure time physical activity during the past 30 days
- 23.6 percent of males engaged in binge drinking of alcohol (5 or more drinks on one occasion), while 13.5 percent of females engaged in binge drinking of alcohol (4 or more drinks)
- 13.4 percent did not see a doctor when needed in the past 12 months due to cost
- 4.9 percent of Missouri adults had driven one or more times after having too much to drink in the past 30 days

In general, a consistent finding from the survey is that adults who have the lowest education levels and annual household incomes compared to those with the highest education and income levels were less healthy, engaged in health risk behaviors to a greater extent, and were less likely to have health care coverage.

# 2016 BRFSS KEY FINDINGS

## General Health Measures

Most Missouri adults (81.0 percent) had excellent, very good or good general health while 19.0 percent had fair or poor health. More than one-third (45.8) of adults with an annual household income of less than \$15,000 had fair or poor general health. Almost one-quarter of adults (24.9 percent) experienced poor physical health on three or more of the past 30 days. Twenty-six (26.3) percent had mental health that was not good on three or more of the past 30 days. Thirty-three (33.0) percent were kept from doing their usual activities on three or more of the past 30 days due to poor physical or mental health.

## Access to Health Care

In Missouri, the percentage of adults without health care coverage declined significantly from 16.7 percent in 2012 to 11.1 percent in 2016. The decrease was significant in age groups 18-24 years (17.9 percent vs 27.7 percent), 25-34 years (17.0 percent vs 28.3 percent), 45-54 years (12.3 percent vs 16.4 percent) and 55-64 (7.2 percent vs 12.2 percent), but changes were small in the other age groups when compared with the data in 2012. A slightly greater percentage of African-American adults (11.3 percent) did not have health care coverage compared to white adults (10.0 percent). A significantly greater percentage of adults with annual household incomes less than \$15,000 (23.1 percent), between \$15,000 and \$24,999 (21.6 percent) or between \$25,000 and \$34,999 (16.0 percent) had no health care coverage compared to those with incomes of \$35,000-\$49,999 (7.6 percent), \$50,000-\$74,999 (6.0 percent), or \$75,000 and greater (2.4 percent). The percentage of no health-care coverage decreased significantly in the households with lower incomes from 2012 (less than \$15,000, 33.6 percent; \$15,000-\$24,999, 33.6) to 2016 (less than \$15,000, 23.1 percent; \$15,000-\$24,999, 21.6), but declined only slightly in the groups with incomes of \$25,000 and higher.

Among adults who had health care coverage:

- 52.8 percent had primary coverage through an employer or union or another person's employer
- 24.6 percent, through Medicare
- 11.0 percent, through a personal plan or other family member's plan
- 5.7 percent, through Medicaid or another state plan
- 3.6 percent, through a military plan, and
- 2.3 percent, through the Indian Health Service or some other source.

Thirteen (13.4) percent of adults needed to see a doctor in the past 12 months but could not because of the cost, including 28.6 percent of those with annual household incomes of less than \$15,000 and 25.1 percent of those with incomes of \$15,000-\$24,999.

Eighty-two (82.2) percent of adults last had a routine checkup within the past two years; 16.6 percent last had a checkup two or more years ago, and 1.2 percent had never had a checkup.

## Health Risk Behaviors

### *Current Cigarette Smoking and Quitting*

Twenty-two (22.1) percent of Missouri adults smoked cigarettes every day or some days, a decline from 23.9 percent in 2012. In 2016, a significantly greater percentage of adults with less than a high school education (42.3 percent) smoked cigarettes than adults with a high school education or GED (28.6

percent), some post high school education (19.3 percent) or a college degree (8.0 percent). Five (4.6) percent of adults used chewing tobacco, snuff, or snus every day or some days. More than one-half (55.3 percent) of current smokers stopped smoking for one day or longer in the past 12 months because they were trying to quit. Among adults who had stopped smoking, 13.4 percent last smoked a cigarette within the past 12 months, 17.6 percent one to five years ago, 11.9 percent five to ten years ago and 57.2 percent ten or more years ago.

#### *Electronic Cigarette Use*

Twenty-five (25.2) percent of Missouri adults had ever used an electronic cigarette. Five (5.0) percent used e-cigarettes every day or some days.

#### *Smokeless Tobacco Use*

Smokeless tobacco was currently used every day or some days by 8.8 percent of Missouri adult males.

#### *Physical Inactivity*

Twenty-five (24.9) percent of Missouri adults had not participated in leisure time physical activity or exercise in the past month. A significantly greater percentage of adults with less than a high school education (46.2 percent) and a high school education or GED (30.6 percent) were physically inactive compared to adults with some post-high-school education (20.9 percent) or a college degree (12.8 percent).

#### *Inadequate Sleep*

One-third (33.9 percent) of Missouri adults slept on average less than seven hours during a 24-hour period. Sixty-three (63.0) percent slept seven to nine hours and 3.1 percent slept more than nine hours on average. A significantly greater percentage of African-American adults (39.2 percent) slept less than seven hours on average than white adults (32.9 percent).

#### *Heavy and Binge Alcohol Drinking*

Seven (7.1) percent of Missouri adults were considered heavy drinkers as defined by males having more than two drinks per day and females having more than one drink per day. A slightly greater percentage of males (7.4 percent) than females (6.7 percent) engaged in heavy drinking. A significantly greater percentage of males (23.6 percent) than females (13.5 percent) engaged in binge drinking on at least one occasion during the past month. Binge drinking is defined as having five or more drinks on one occasion for males and four or more drinks for females.

### **Injuries**

#### *Driving after Drinking*

Five (4.9) percent of Missouri adults had driven one or more times after having too much to drink in the past 30 days.

#### *Lack of Seatbelt Use*

Twenty-two (21.6) percent of Missouri adults did not always wear a seat belt. Twenty-seven (26.7) percent of males and 16.8 percent of females did not always wear a seat belt.

## *Falls*

Among Missouri adults age 45 and older, 32.5 percent had fallen one or more times in the past 12 months. Thirty-nine (39.0) percent had one or more of the falls result in an injury that caused them to limit their regular activities for at least a day or to go see a doctor.

## **Chronic Conditions and Diseases**

Missouri adults had the percentage of chronic conditions or diseases in 2016 as follows.

- *Overweight* – 35.6 percent  
A significantly greater percentage of males (42.6 percent) than females (28.4 percent) were overweight.
- *Obesity* – 31.7 percent  
A significantly greater percentage of African-American adults (39.5 percent) were obese than White Non-Hispanic adults (30.8 percent).
- *Arthritis* – 30.6 percent  
A significantly greater percentage of adults with less than a high school education (45.4 percent) had arthritis than adults with a high school education or GED (32.5 percent), some post high school education (29.9 percent) or a college degree (22.0 percent).
- *Depressive Disorder* – 21.7 percent  
A significantly greater percentage of females (26.7 percent) than males (16.3 percent) had been told by a health professional that they had a depressive disorder. A significantly greater percentage of adults with less than a high school education (34.9 percent) had a depressive disorder than adults with a high school education or GED (19.3 percent), some post high school education (24.7 percent), or a college degree (14.3 percent).
- *Diabetes* – 11.5 percent  
A slightly greater percentage of African-American adults (13.8 percent) had been told by a health professional they had diabetes compared to white adults (11.3 percent). Among adults with diabetes, more than sixty four (64.3) percent had been told they had diabetes after the age of 45.
- *Current Asthma* – 9.9 percent  
A significantly greater percentage of adult females (12.5 percent) than males (7.0 percent) currently had asthma.
- *Chronic Obstructive Pulmonary Disease* – 8.7 percent  
A significantly greater percentage of adults with less than a high school education (23.0 percent) had been told by a health professional they had chronic obstructive pulmonary disease than adults with a high school education (8.7 percent), some post high school education (7.7 percent) or a college degree (3.2 percent).
- *Cancer* (Other than skin) – 7.2 percent  
19.2 percent of adults age 65 and older had been diagnosed with a type of cancer other than skin cancer. Eight (7.5) percent of adults had been diagnosed with skin cancer, including 20.4 percent of adults age 65 and older.
- *Heart Attack* – 5.0 percent  
A significantly greater percentage of males (6.4 percent) than females (3.7 percent) had been told by a health professional they had experienced a heart attack or a myocardial infarction.
- *Coronary Heart Disease* – 4.7 percent  
A significantly greater percentage of males (5.2 percent) than females (4.3 percent) had been told by a health professional that they had coronary heart disease or angina.
- *Stroke* – 4.6 percent  
A significantly greater percentage of adults ages 65 and older (10.0 percent) had been told by a health professional that they had experienced a stroke than adults less than 65 years of age (3.1 percent).
- *Kidney Disease* – 3.6 percent  
Less than four percent of adults had been told by a health professional they had kidney disease.

### *Childhood Asthma*

Adults with children under the age of 18 were asked to answer questions about a randomly selected child in the household. Responses were weighted to be representative of all children in Missouri under the age of 18. As a result, it was found that 12.8 percent of children under the age of 18 in Missouri had been told by a doctor or other health professional that they had asthma. Among those that had been told they had asthma, 66.4 percent still had the condition.

### **Screenings**

#### *Breast Cancer*

Among females age 40 and older, 70.2 percent had a mammogram within the past two years. A greater percentage of African-American females (76.9) than white females (70.1 percent) had a mammogram within the past two years. A significantly smaller percentage of females age 40 and older with less than a high school education (52.2 percent) had a mammogram within the past two years than females with a high school education (68.5 percent), some post high school education (70.8 percent) or a college degree (80.9 percent).

Within the past two years, 77.0 percent of females age 50 and older had a mammogram, and a greater percentage of African-American women (80.1 percent) had a mammogram than white women (76.9 percent).

#### *Cervical Cancer*

Within the past three years, 64.1 percent of females age 18 and older had a pap test, and a significantly greater percentage of African-American females (77.4 percent) had a pap test than white females (62.8 percent).

#### *Prostate Cancer*

Among men age 40 and older, 43.2 percent had a Prostate-Specific Antigen (PSA) test within the past two years, a significant decline from 50.2 percent in 2012.

#### *Colorectal Cancer*

Among adults between age 50 and 75 years, 9.0 percent had a home blood stool test within the past two years, and sixty-nine (69.1) percent had ever had a sigmoidoscopy or colonoscopy exam (48.9 percent in adults age 50-54, 70.2 percent in age 55-64 and 81.4 percent in age 65-75). Among those checked by sigmoidoscopy and colonoscopy, 97.8 percent had a colonoscopy as their most recent exam.

### **Cancer Survivorship**

Among the adults who had experienced some type of cancer, 80.0 percent had only one type, 16.9 percent had two types and 3.1 percent had three or more types. Eleven (10.6) percent were currently receiving treatment for cancer, 82.1 percent had completed treatment, 6.7 percent had not started treatment and 0.6 percent had refused treatment. Five (4.5) percent had participated in a clinical trial as part of their cancer treatment. Nine (8.5) percent were experiencing physical pain caused by the cancer or cancer treatment.

Ninety-three (92.9) percent had health insurance that paid for all or part of their cancer treatment for the most recent diagnosis of cancer. Six (5.5) percent had been denied health insurance or life insurance coverage because of their cancer.

## **Preventive Practices**

### *Immunizations*

Forty-three (42.5) percent of adults age 18 and older had the flu vaccine within the past twelve months. Among adults age 65 and older, 64.9 percent had the flu vaccine within the past 12 months. Also among adults age 65 and older, 75.4 percent had ever had a pneumococcal vaccination. Among adults age 50 and older, 23.7 percent had ever had the shingles or Zoster vaccine (age 50-59, 3.7 percent; ages 60-64, 24.1 percent; and 65 and older, 39.1 percent).

Twenty-four (23.7) percent of adults age 18 and older had received the tetanus shot that also has pertussis or whooping cough vaccine. The percentage of receiving the shot was significantly lower in the adults with lower incomes (less than \$15,000, 21.7 percent; \$75,000 and above, 31.5 percent). Fourteen (13.9) percent of adults age 18 to 49 had ever had the vaccination of Human Papilloma Virus.

### *HIV Testing*

Thirty-four (33.8) percent of adults age 18 and older had ever been tested for HIV. A significantly greater percentage of African-American adults (58.7 percent) than white adults (29.9 percent) had been tested. About 40 percent (38.8) of Hispanic had ever been tested for HIV.

### *Oral Health*

Sixty-two (61.6) percent of Missouri adults visited a dentist within the past 12 months, 12.5 percent had seen a dentist between one and two years ago, 10.3 percent had done so between two and five years ago and 15.6 percent had last seen a dentist five or more years ago. More than one-third (37.4 percent) of adults with an annual household income of less than \$15,000 had not seen a dentist within the past five years. Forty-nine (48.8) percent of adults had had one or more permanent teeth removed due to decay, gum disease or infection, including 7.1 percent who had all their teeth removed.

## **Gambling**

Fourty six (46.0) percent of adults gambled for money or something else of value in the last 12 months, a significant increase from 36.4 percent in 2013. Among the adults that had gambled, money spent on gambling led to financial problems for 1.3 percent.